

What Is Claimed:

1. An absorbent article comprising:
an outer cover material;
a liner; and
5 an absorbent structure positioned between the outer cover material and the liner, the absorbent structure comprising:
 - (a) a front portion;
 - (b) a middle portion;
 - (c) a rear portion;
 - 10 (d) a pair of opposing lateral flaps;
 - (e) a pair of opposing middle openings spaced between the middle portion and the lateral flaps;
 - (f) at least one rear opening; and
- 15 wherein the lateral flaps have been folded onto at least the middle portion, the middle portion having a width narrower than the width of the front portion due to the location of the pair of opposing middle openings, the folded lateral flaps creating at least a two layer structure in the location of the middle portion.
- 20 2. An absorbent article as defined in claim 1, wherein the folded lateral flaps create a basis weight in the location of the middle portion that is at least about twice the basis weight of areas of the rear portion.
- 25 3. An absorbent article as defined in claim 1, wherein the middle openings have an inner concave-shaped edge and an outer convex-shaped edge that cooperate when the lateral flaps are folded to give the absorbent structure an overall hourglass-like shape.
- 30 4. An absorbent article as defined in claim 1, wherein the absorbent structure includes two opposing rear openings separated by a strip of material, the strip of material being connected to the middle portion and narrower than the middle portion.
5. An absorbent article as defined in claim 4, wherein each of the rear openings is connected to a corresponding middle opening.

6. An absorbent article as defined in claim 1, wherein the lateral flaps are adhesively secured to the middle portion.

7. An absorbent article as defined in claim 1, wherein the absorbent structure has a length and wherein the lateral flaps extend substantially the entire
5 length of the absorbent structure.

8. An absorbent article as defined in claim 1, wherein the absorbent structure has a rectangular shape when placed in an unfolded state.

9. An absorbent article as defined in claim 1, wherein the absorbent structure includes score lines that separate and define the lateral flaps.

10. An absorbent article as defined in claim 1, wherein the middle portion has a basis weight that is at least about twice the basis weight of areas of the front portion.

11. An absorbent article as defined in claim 2, wherein the folded lateral flaps create a basis weight in the location of the front portion that is at least about
15 twice the basis weight of areas of the rear portion.

12. An absorbent article as defined in claim 1, wherein the folded lateral flaps create a basis weight in the location of the middle portion that is at least 25% greater than the basis weight of areas of the rear portion.

13. An absorbent article as defined in claim 1, wherein the folded lateral
20 flaps create a basis weight in the location of the middle portion that is at least 150% greater than the basis weight of areas of the rear portion.

14. An absorbent article as defined in claim 1, wherein the absorbent structure has a generally uniform basis weight when placed in an unfolded state, except for the location of the middle openings and the at least one rear opening.

25 15. An absorbent article as defined in claim 1, wherein the absorbent article is one of diapers, child's training pants, feminine care articles, and incontinence articles.

16. An absorbent article as defined in claim 1, wherein the absorbent structure comprises pulp fibers and superabsorbent particles.

30 17. An absorbent article as defined in claim 1, wherein the absorbent structure comprises an air formed web.

18. An absorbent article as defined in claim 11, wherein the basis weight of the absorbent structure is from about 100 gsm to about 2000 gsm.

19. An absorbent article as defined in claim 1, wherein the absorbent structure has been debulked and has a density of from about 0.1 g/cc to about 0.45 g/cc.

20. An absorbent article as defined in claim 1, wherein the absorbent structure contains synthetic binder fibers.

21. An absorbent article as defined in claim 1, wherein the absorbent structure contains an adhesive.

22. A method of forming absorbent pads from an absorbent web material comprising:

forming a strip of an absorbent web material, the strip of absorbent web material including a succession of interconnected individual absorbent pads, each of the pads including:

- (a) a front portion;
- (b) a middle portion;
- (c) a rear portion;
- (d) a pair of opposing lateral flaps;
- (e) a pair of opposing middle openings spaced between the middle portion and the lateral flaps; and
- (f) at least one rear opening;

conveying the strip of absorbent web material in a machine direction; folding the opposing lateral flaps onto at least the middle portion of each individual absorbent pad; and

cutting the strip of web material in a cross direction into the individual absorbent pads, wherein the middle portion has a width narrower than the width of the front portion due to the location of the pair of opposing middle openings, once folded, the lateral flaps creating at least a two layer structure in the location of the middle portion.

23. A method as defined in claim 22, wherein by folding the lateral flaps, the lateral flaps create a basis weight in the location of the middle portion of each absorbent pad that is at least about twice the basis weight of areas of the rear portion.

24. A method as defined in claim 22, wherein the middle openings have an inner concave-shaped edge and an outer convex-shaped edge that cooperate when the lateral flaps are folded to give the absorbent structure an overall hourglass-like shape.

5 25. A method as defined in claim 22, wherein the absorbent structure includes two opposing rear openings separated by a strip of material, the strip of material being connected to the middle portion and being narrower than the middle portion.

10 26. A method as defined in claim 25, wherein each of the rear openings is connected to a corresponding middle opening.

27. A method as defined in claim 22, wherein the strip of absorbent web material is air formed.

28. A method as defined in claim 22, wherein the strip of the absorbent web material comprises pulp fibers and superabsorbent particles.

15 29. A method as defined in claim 27, wherein the pair of opposing middle openings and the at least one rear opening are formed during the air forming process.

20 30. A method as defined in claim 22, wherein the pair of opposing middle openings and the at least one rear opening are formed by cutting the absorbent web material.

31. A method as defined in claim 22, further comprising the step of applying an adhesive to the strip of the absorbent web material in order to adhere the lateral flaps to the web material.

25 32. A method as defined in claim 22, further comprising the step of scoring the absorbent web material to form a pair of score lines that generally extend in the machine direction, the score lines defining the lateral flaps.

33. A method as defined in claim 22, wherein the absorbent structure has a length and wherein the lateral flaps extend substantially the entire length of the absorbent structure.

30 34. A method as defined in claim 22, wherein each individual absorbent pad has a rectangular shape prior to folding the lateral flaps.

35. A method as defined in claim 22, wherein by folding the lateral flaps, the lateral flaps create a basis weight in the location of the middle portion that is at least about twice the basis weight of areas of the front portion.

5 36. A method as defined in claim 32, further comprising the step of debulking the strip of absorbent web material.

37. A method as defined in claim 22, wherein the strip of absorbent web material has a basis weight of from about 100 gsm to about 2000 gsm.

10 38. A method as defined in claim 22, wherein by folding the lateral flaps, the lateral flaps create a basis weight in the location of the front portion of each absorbent pad that is at least about twice the basis weight of areas of the rear portion.

39. A method as defined in claim 22, wherein by folding the lateral flaps, the lateral flaps create a basis weight in the location of the middle portion that is at least about 25% greater than the basis weight of areas of the rear portion.

15 40. A method as defined in claim 22, wherein by folding the lateral flaps, the lateral flaps create a basis weight in the location of the middle portion that is at least about 150% greater than the basis weight of areas of the rear portion.

41. A method as defined in claim 22, wherein the absorbent web material contains synthetic binder fibers.

20 42. A method as defined in claim 22, wherein the absorbent web material contains an adhesive.

43. An absorbent article comprising:
an outer cover material;
a liner; and
25 an absorbent structure positioned between the outer cover material and the liner, the absorbent structure including a front portion, a rear portion, and a middle portion, the absorbent structure having a length and a pair of opposing lateral flaps that extend substantially the entire length of the absorbent structure, the pair of opposing lateral flaps being folded onto the front portion, the rear
30 portion and the middle portion, the middle portion having a narrower width than the front portion and the rear portion, and wherein, once the lateral flaps are folded, the lateral flaps create at least a two layer structure in the location of the middle portion.

44. An absorbent article as defined in claim 43, wherein the absorbent structure further comprises a pair of opposing middle openings spaced between the middle portion and the lateral flaps, the middle portion being narrower than the front portion due to the location of the opposing middle openings.

5 45. An absorbent article as defined in claim 44, wherein the absorbent structure further comprises at least one rear opening.

46. An absorbent article as defined in claim 44, wherein the absorbent structure further comprises two opposing rear openings separated by a strip of material, the strip of material being narrower than the middle portion.

10 47. An absorbent article as defined in claim 46, wherein each of the rear openings is connected to a corresponding middle opening.

48. An absorbent article as defined in claim 43, wherein the absorbent structure has a rectangular shape when placed in an unfolded state.

15 49. An absorbent article as defined in claim 43, wherein the absorbent structure includes score lines that separate and define the lateral flaps.

50. An absorbent article as defined in claim 43, wherein the middle portion has a basis weight that is at least about twice the basis weight of areas of the rear portion.

20 51. An absorbent article as defined in claim 43, wherein the absorbent article is one of diapers, child's training pants, feminine care articles, and incontinence articles.

52. An absorbent article as defined in claim 43, wherein the absorbent structure comprises pulp fibers and superabsorbent particles.

25 53. An absorbent article as defined in claim 43, wherein the absorbent structure comprises an air formed web.

54. An absorbent article as defined in claim 43, wherein the basis weight of the absorbent structure is from about 100 gsm to about 2000 gsm.

30 55. An absorbent article as defined in claim 43, wherein the absorbent structure has been debulked and has a density of from about 0.15 g/cc to about 0.4 g/cc.

56. An absorbent article as defined in claim 50, wherein the middle portion has a basis weight that is at least about twice the basis weight of areas of the front portion.

57. An absorbent article as defined in claim 43, wherein, once the lateral flaps are folded, the lateral flaps create a basis weight in the location of the middle portion that is at least about 25% greater than the basis weight of areas of the rear portion.

5 58. An absorbent article as defined in claim 43, wherein, once the lateral flaps are folded, the lateral flaps create a basis weight in the location of the middle portion that is at least about 150% greater than the basis weight of areas of the rear portion.

10 59. An absorbent article as defined in claim 43, wherein the absorbent structure contains synthetic binder fibers.

60. An absorbent article as defined in claim 43, wherein the absorbent structure contains an adhesive.